# **EXHIBIT D**

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DOCKET NO. CPL-HHD-CV-15-6057664S (CLD X03)
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    EDWARD McDEVITT,
                                 SUPERIOR COURT
5
                                 J.D. OF HARTFORD
    v.
    BOEHRINGER INGELHEIM
6
                                AT HARTFORD
7
    PHARMACEUTICALS, INC., and (Complex
    BOEHRINGER INGELHEIM
                                 Litigation
8
9
    INTERNATIONAL GMBH
                                 Docket)
    *******
10
11
    This Document Relates To:
12
    All CT Pradaxa Actions
    ********
13
14
      VIDEOTAPED DEPOSITION OF JOANNE VAN RYN
15
               Monday, June 26, 2017
                      8:33 a.m.
16
17
     Held at:
     Covington & Burling, LLP
18
     265 Strand
     London, WC2R 1BH
19
20
    REPORTED BY: CARRIE A. CAMPBELL, RDR CRR CSR
21
22
23
24
25
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| 1  | for?  | Page 35 |
|----|---|---------|
| 2  | A. Yeah. Just to see if the idea              |         |
| 3  | works at all.                                 |         |
| 4  | Q. Okay. And then in the first                |         |
| 5  | bullet point, you noted that in-house there   |         |
| 6  | already existed four polyclonal rabbit        |         |
| 7  | antibodies to dabigatran, correct?            |         |
| 8  | A. That's what it says, yes.                  |         |
| 9  | Q. That's what you put in the                 |         |
| 10 | presentation, right?                          |         |
| 11 | A. Yes.                                       |         |
| 12 | Q. Okay. And that those had been              |         |
| 13 | developed in 2002 by Uli Kunz?                |         |
| 14 | A. Yes, they were developed in the            |         |
| 15 | early dabigatran testing in volunteers as a   |         |
| 16 | way to measure dabigatran levels in the test  |         |
| 17 | tube.   |         |
| 18 | Q. And then the second bullet                 |         |
| 19 | point noted that all four of those antibodies |         |
| 20 | neutralize the anticoagulate effect of        |         |
| 21 | dabigatran in human plasma, thrombin time     |         |
| 22 | clotting assay, correct?                      |         |
| 23 | A. Yes.                                       |         |
| 24 | Q. And that's what you were hoping            |         |
| 25 | to do with the antidote that you were         |         |

| 1  | correct?                                      | Page 51 |
|----|---|---------|
| 2  | A. Yes.                                       |         |
| 3  | Q. All right. And then if we look             |         |
| 4  | to the following slide, you got proof of      |         |
| 5  | concept in 2009, correct?                     |         |
| 6  | A. Yes.                                       |         |
| 7  | Q. Okay. And we talked about that             |         |
| 8  | already.                                      |         |
| 9  | And then the next slide is                    |         |
| 10 | entitled "Is it possible to specifically      |         |
| 11 | inhibit dabigatran," and the date you have on |         |
| 12 |   |         |
|    | here is January 2009, "making dabigatran      |         |
| 13 | immunogenic," correct?                        |         |
| 14 | A. That's what it says, yes.                  |         |
| 15 | Q. And tell the jury what that                |         |
| 16 | means.  |         |
| 17 | A. Normally dabigatran doesn't                |         |
| 18 | you don't raise antibodies against            |         |
| 19 | dabigatran, so you have to do something       |         |
| 20 | chemically to make dabigatran different so    |         |
| 21 | that it's possible to raise antibodies        |         |
| 22 | against it.                                   |         |
| 23 | And so here we started adding                 |         |
| 24 | its linker, it's called, to the actual        |         |
| 25 | molecule of dabigatran, and then we added     |         |
|    |   |         |

| 1  | you see this circle BSA, that stands for     | Page 52 |
|----|--|---------|
| 2  | bovine serum albumin. And it's a huge        |         |
| 3  | protein. It's like a hundred times bigger    |         |
| 4  | than this little tiny dabigatran. And this   |         |
| 5  | is a bovine means it's from cows. And        |         |
| 6  | when you inject this into mouse, they raise  |         |
| 7  | antibodies because it's a foreign protein.   |         |
| 8  | And so these antibodies that's how you       |         |
| 9  | develop antibodies.                          |         |
| 10 | And then you purify hundreds of              |         |
| 11 | them until you find the few antibodies that  |         |
| 12 | also recognize the little dabigatran on the  |         |
| 13 | end of this big protein. And that's how we   |         |
| 14 | start that's how we found Praxbind,          |         |
| 15 | through this process.                        |         |
| 16 | Q. Okay. And when you said you               |         |
| 17 | purify hundreds of them, did you have to     |         |
| 18 | purify hundreds of them, or were you already |         |
| 19 | pretty sure that you had the ideas for the   |         |
| 20 | four that we've talked about?                |         |
| 21 | How did that work?                           |         |
| 22 | MR. IMBROSCIO: Object to the                 |         |
| 23 | form.  |         |
| 24 | THE WITNESS: No. The four                    |         |
| 25 | that we had had nothing to do with           |         |

|    | Page 53                                       |
|----|---|
| 1  | this. It only showed that the idea            |
| 2  | would work.                                   |
| 3  | We started completely over and                |
| 4  | screened hundreds of these to find the        |
| 5  | ones those four that we found were            |
| 6  | very similar and could be humanized,          |
| 7  | and one of them ended up becoming             |
| 8  | Praxbind.                                     |
| 9  | QUESTIONS BY MR. CHILDERS:                    |
| 10 | Q. Okay. So even though you                   |
| 11 | started all the way over, it still took you   |
| 12 | less than a year to figure that out, right?   |
| 13 | A. It took about a year in total,             |
| 14 | I guess.                                      |
| 15 | Q. When you say "a year in total,"            |
| 16 | are you talking about from when you looked at |
| 17 | the antibodies you had already had in the     |
| 18 | freezer to then or when you started           |
| 19 | completely over?                              |
| 20 | A. So this is in January of 2009.             |
| 21 | Q. Mm-hmm.                                    |
| 22 | A. I don't remember exactly when              |
| 23 | we did proof of concept. I think we did them  |
| 24 | in parallel. So we wanted to see does the     |
| 25 | idea work, and we started developing new      |
|    |   |

| 1  | that quote so as you laughed about it?        | Page | 74 |
|----|---|------|----|
| 2  | A. I don't know exactly.                      |      |    |
| 3  | Potentially.                                  |      |    |
| 4  | Q. And I assume you're laughing               |      |    |
| 5  | because it was kind of ironic; it was already |      |    |
| 6  | in the freezer since 2002?                    |      |    |
| 7  | A. And again, as we described                 |      |    |
| 8  | earlier, so that allowed me and that's        |      |    |
| 9  | also what it says later to show that the      |      |    |
| 10 | idea could work.                              |      |    |
| 11 | The actual antibodies, these                  |      |    |
| 12 | were polyclonal antibodies. They were dirty   |      |    |
| 13 | antibodies. They were developed for a test    |      |    |
| 14 | tube, never to be given to a person. It's     |      |    |
| 15 | part of their standard work process.          |      |    |
| 16 | They probably have antibodies                 |      |    |
| 17 | to every drug we've made in their freezer,    |      |    |
| 18 | but this is he's not in research. I'm not     |      |    |
| 19 | in pharmacokinetics. I had no idea that this  |      |    |
| 20 | is a process that they do. And I only         |      |    |
| 21 | learned about it because Norbert Hauel had    |      |    |
| 22 | mentioned that in our discussion.             |      |    |
| 23 | Q. And you had not asked him prior            |      |    |
| 24 | to 2008 about that, correct?                  |      |    |
| 25 | A. I didn't know about it.                    |      |    |

| 1  | CERTIFICATE   | Page 424 |
|----|---|----------|
|    | CERTIFICATE   |          |
| 2  |   |          |
| 3  | I, CARRIE A. CAMPBELL, Registered Diplomate Reporter, Certified Realtime                    |          |
| 4  | Reporter and Certified Shorthand Reporter, do hereby certify that prior to the commencement |          |
| 5  | of the examination, Joanne van Ryn was duly sworn by me to testify to the truth, the        |          |
| 6  | whole truth and nothing but the truth.  |          |
| 7  | I DO FURTHER CERTIFY that the foregoing is a verbatim transcript of the                     |          |
| 8  | testimony as taken stenographically by and before me at the time, place and on the date     |          |
| 9  | hereinbefore set forth, to the best of my ability.  |          |
| 10 | I DO FURTHER CERTIFY that I am  |          |
| 11 | neither a relative nor employee nor attorney nor counsel of any of the parties to this      |          |
| 12 | action, and that I am neither a relative nor employee of such attorney or counsel, and      |          |
| 13 | that I am not financially interested in the action.   |          |
| 14 | 4661611.  |          |
| 15 |   |          |
| 16 |   |          |
| 17 | CARRIE A. CAMPBELL,  NCRA Registered Diplomate Reporter                                     |          |
| 18 | Certified Realtime Reporter California Certified Shorthand                                  |          |
| 19 | Reporter #13921   |          |
| 20 | Missouri Certified Court Reporter #859 Illinois Certified Shorthand Reporter #084-004229    |          |
| 21 | Texas Certified Shorthand Reporter #9328 Kansas Certified Court Reporter #1715              |          |
| 22 | Notary Public   |          |
| 23 | Dated: July 12, 2017  |          |
| 24 |   |          |
| 25 |   |          |
|    |   |          |

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| 1  |   | Page | 427 |
|----|---|------|-----|
| 2  | ACKNOWLEDGMENT OF DEPONENT                |      |     |
| 3  |   |      |     |
| 4  | I,, do                                    |      |     |
| 5  | hereby certify that I have read the       |      |     |
| 6  | foregoing pages, and that the same is     |      |     |
| 7  | a correct transcription of the answers    |      |     |
| 8  | given by me to the questions therein      |      |     |
| 9  | propounded, except for the corrections or |      |     |
| 10 | changes in form or substance, if any,     |      |     |
|    |   |      |     |
| 11 | noted in the attached Errata Sheet.       |      |     |
| 12 |   |      |     |
| 13 |   |      |     |
| 14 | <del></del>                               |      |     |
| 15 | JOANNE VAN RYN DATE                       |      |     |
| 16 |   |      |     |
| 17 |   |      |     |
| 18 | Subscribed and sworn to before me this    |      |     |
| 19 | day of , 20                               |      |     |
| 20 | My commission expires:                    |      |     |
| 21 |   |      |     |
| 22 | Notary Public                             |      |     |
| 23 |   |      |     |
| 24 |   |      |     |
| 25 |   |      |     |
|    |   |      |     |